

Ammonia or Total Kjeldahl Nitrogen (TKN) by Ion Selective Electrode**SM 4500-NH₃ D-1997 (2011)**

ADDITIONAL QC REQUIREMENTS FOR THIS METHOD: Certified or Accredited laboratories using this method are assessed to applicable requirements of SM 1020 and SM 4020. Also refer to appropriate checklist for TKN sample digestion.

Facility Name: _____ VELAP ID: _____

Assessor Name: _____ Analyst Name: _____ Inspection Date: _____

Relevant Aspect of Standards**Method
Reference****Y****N****N/A****Comments**

Records Examined: SOP Number/ Revision/ Date _____ Analyst: _____

Sample ID: _____ Date of Sample Preparation: _____ Date of Analysis: _____

Were samples refrigerated at ≤6°C, preserved to a pH of less than 2 with H₂SO₄, and analyzed within 28 days?40 CFR
136.3

Were samples checked for residual chlorine, and if present, were they treated with a dechlorinating agent?

NH3-A.2

Were 100 mL aliquots of sample used?

NH3-D.4.b

Was the electrode always immersed prior to the addition of 10N NaOH (or NaOH/ EDTA), as ammonia may escape solution immediately after addition and not enter the probe?

NH3-D.4.b

Was sufficient volume of 10N NaOH added to samples during measurement to have brought sample pH above 11? (1 mL is usually sufficient.)

NH3-D.4.b

If more than 1mL of NaOH is added to samples, is the volume noted and used for calculation of result?

NH3-D.4.b

Was the electrode allowed to stabilize after the addition of NaOH and prior to recording the millivolts for at least 2 to 3 minutes for standards and samples containing ≤1 mg NH₃-N/L?

NH3-D.4.b

Was a calibration curve prepared by analyzing standards from lowest to highest concentration and plotting ammonia concentration versus potential in millivolts?

NH3-D.4.b,c

Did the calculations take into account volume of NaOH used and dilution factors?

NH3-D.5

Notes/Comments: